

HOST CHANNEL ADAPTER HAVING PARTITIONED
LINK LAYER SERVICES FOR AN INFINIBAND SERVER
SYSTEM

ABSTRACT OF THE DISCLOSURE

A host channel adapter configured for outputting packets according to InfiniBand™ protocol is implemented using partitioned link modules configured for performing selected link operations prior to outputting the packets. A pre-link module is configured for ordering work queue entries in an order based on determined service level and virtual lane priorities. The pre-link module outputs the ordered work queue entries to a transport service module configured for generating a transport layer header for the packets based on the respective work queue entries. Once the transport layer headers have been generated, a post-link module is configured for retrieval of the transport layer header and transport data and preparing the transmit data packets for transmission on the network by constructing the link layer fields. The post-link module outputs the transmit data packets based on the ordering and the flow control protocol for the appropriate virtual lanes.